IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Examiner	:	Lashonda T. Jacobs
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 4, 2006.

Signature: Carla Rivera

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL 37 C.F.R. § 1.131 DECLARATION

Dear Sir:

We, Timothy G. Curray and Bradley A. Lazenby, named co-inventors of pending U.S. Patent Application No. 09/824,493 ("the '493 application"), entitled "Ethernet Communications For Power Monitoring System," supplementing our "37 C.F.R. § 1.131 DECLARATION" filed April 25, 2006, hereby declare:

1. The subject matter claimed in all the pending claims 1-41 in the '493 application was actually reduced to practice prior to November 28, 2000. The hardware that was reduced to practice is the Ethernet Communication Card, or "ECC," shown in the photograph on the first page of Exhibit B (submitted with our Declaration filed April 25). The ECC is shown in that photograph partially inserted into a Power Logic Series 4000 Circuit Monitor.

2. Attached as Exhibit C is a Schneider Electric/Square D news release dated July 20, 2000, announcing that the ECC is "Now Available" (i.e., as of July 20, 2000). This news release specifically mentions that the ECC allowed customers "to connect their POWERLOGIC CM4000 Circuit Monitor to their LAN/WAN system for direct Ethernet communications," that "An RS-485 Modbus master port on the ECC supports a daisy-chain of up to 31 additional devices, allowing the CM4000 with ECC to act as an Ethernet gateway for the devices," and that

"Embedded HTML pages allow for easy device setup and supply real-time power system information from the CM4000 circuit monitor through a standard web browser. Similar information can also be viewed for devices daisy-chained to the ECC's onboard RS-485 port."

3. Attached as Exhibit D is a Schneider Electric/Square D Sales Bulletin dated August, 2000, entitled "POWERLOGIC Ethernet Communication Card." This bulletin specifically describes the ECC as having the following features and functions:

POWERLOGIC Ethernet Communication Card Features

- Provides direct Ethernet TCP/IP communication for the POWERLOGIC Series 4000 circuit monitor
- Utilize existing Ethernet LAN/WAN
- View data and information through embedded HTML pages on a standard web browser
- Embedded HTML pages for setup and configuration
- 10/100 BaseT and 100 BaseFX ports
- Supports Modbus/TCP
- RS485 port supports up to 31 devices over a mixed mode daisy chain, i.e., SY/MAX, Modbus, and Jbus
- Mounts directly into expansion slot on Series 4000 circuit monitor
- Downloadable firmware via Internet

Direct Connection to Ethernet

The Ethernet Communication Card (ECC) provides Series 4000 Circuit Monitors direct high speed Ethernet connection to TCP/IP-based LAN/WAN networks. The ECC uses standard UTP RJ-45 and fiber optic LC connectors on the same board for flexibility in network cabling. Modbus/TCP protocol allows you a wider range of connectivity to include more products and gives network architecture more flexibility. Communicating at 10/100 megabaud speeds, the Series 4000 Circuit Monitor with the ECC puts fast access to information at your fingertips.

East Installation, Setup, and Data Viewing

The ECC easily installs into an expansion slot on the circuit monitor and connects by either UTP or fiber. A standard web browser gives access to embedded HTML pages that guide you through the setup and configuration process with ease. The power of the circuit monitor is now at your service with browser access to web

pages displaying real-time data. Five embedded HTML pages are customizable to meet your needs and can be created on a desktop PC then uploaded over the Ethernet through the ECC.

Information is also available from devices daisy-chained to the onboard RS-485 port. The port supports mixed mode communications including SY/MAX, MODBUS, and JBUS protocols. Up to 31 defined devices can be supported, 64 with a repeater.

Ethernet-based POWERLOGIC Power Monitoring Systems

The POWERLOGIC Power Monitoring and Control System with the Series 4000 Circuit Monitor and ECC allows you to leverage your existing Ethernet technology to satisfy your power monitoring and control system needs. Access to power and energy data, power quality, and other information is now available over virtually any existing communication infrastructure, including the Internet.

The combination of the Series 4000 Circuit Monitor and ECC provides greater expansion and flexibility in existing monitoring and control systems. As your POWERLOGIC system expands (the number of users increase, and additional devices are installed), you will be able to use standard off-the-shelf products to meet your specific network requirements.

4. ECC's were sold and shipped to several customers in August, September and October of 2000, and those ECC's included all the features and functionality described in paragraphs 2 and 3 of our Declaration filed April 25, 2006. Two such sales are confirmed by Exhibits E and F, which are copies of Square D Order Data Reports showing that ECC's were sold and shipped to Southern California Edison in Westminster, California on August 17, 2000, and to Fermilab in Batavia, Illinois on September 5, 2000. More than 100 ECC's were shipped to various customers in the United States before November of 2000.

5. One example of an ECC that was manufactured in September of 2000 is shown in the photographs in Exhibit G. The label affixed to this ECC, visible in the upper right-hand corner of the first photograph in Exhibit G, shows that this ECC was made on September 11, 2000, and was assigned Serial No. 13000060. The optical fiber port is covered by the cream-colored cap protruding from the top edge of the card in the first photograph.

6. Square D would not have sold and shipped the ECC, particularly in such quantities, without having thoroughly tested the design of the final product to ensure that it would perform the functions described in the sales literature and news releases (e.g., Exhibit C) and in the Instruction Bulletin that accompanied each product (see, e.g., the Instruction Bulletin

submitted as Exhibit B to our Declaration filed April 25). We were personally involved in such testing throughout the first eight months of 2000. Many of the tests to which the ECC was subjected prior to the first sales in August of 2000 are described in paragraphs 2 and 3 of our Declaration filed April 25. Those tests were carried out using test protocols established within Square D and described in an "ECC Test" document attached hereto as Exhibit H.

7. Prior to August of 2000, the ECC produced satisfactory results in each of the tests identified in Exhibit H. Those test results demonstrated that the ECC performed all the functions described in paragraphs 2 and 3 of our Declaration filed April 25. The ECC's that were tested at that time contained all the components and features identified in the bullet points listed in paragraphs 2 and 3 of our Declaration filed April 25, and were tested in a Square D Power Logic Series 4000 Circuit Monitor (referred to in Exhibit H as "CM4") to communicate with, and gather data in real time from, daisy-chained slave devices such as Square D's Series 2000 and Series 4000 Circuit Monitors (referred to in Exhibit H as "CM2s" and "CM4s") and Power Meters (referred to in Exhibit H as "PMs"). Custom HTML pages stored in the CM4 were accessed through the ECC using a standard web browser in a PC, to display information from both the CM4 and the daisy-chained slave devices. The ECC had an RS-485 communication port (used to connect to the daisy chain of slave devices via 4-wire or 2-wire shielded cable), a 10/100 BaseT Twisted Pair port with a standard RJ-45 connector, a 100BaseFx port for optical fiber cable connections (either half-duplex or full-duplex), and a "ECC/CM4000 Connector" for connecting the ECC to the CM4. The ECC supported communications with MODBUS/JBUS devices and "PowerLogic" protocol (SY/MAX" devices). Custom pages could be uploaded from a PC to the CM4 using File Transfer Protocol (FTP). Thus, the tests conducted prior to August of 2000 included all the elements of all the claims 1-41 in the '493 application, and the results of those tests confirmed that all those elements worked for their intended purposes. Specifically:

- the "processor" recited in independent claims 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 16, 38 and 41 (which corresponds to the CPU shown in Figure 1 on page 8 of Exhibit A, which is the same as Fig. 2 of the '493 application) was successfully tested prior to August of 2000 as both a master device and a slave device in the various "ECC Communications" tests identified in sections 1.1 through 1.6 of Exhibit H;
- the "communications interface" recited in independent claims 1, 3, 4, 5, 6, 7, 9, 11, 12, 14, 15, 38, 39 and 40 (which correspond to the RS485 port shown in Figure 1 on

page 8 of Exhibit A, which is the same as Fig. 2 of the '493 application, and the "slave RS485 devices" referred to on page 7 of Exhibit A) were successfully tested prior to August of 2000 in the various "ECC Communications" tests identified in sections 1.1 through 1.6 of Exhibit H, and in the various "ECC Functionality" tests identified in sections 2.1 through 2.5 of Exhibit H;

- the connected "slave devices" recited in independent claims 1-3, 10-11, 18-19, 25-26, 32-33 and 38 (which correspond to the "slave RS485 devices" referred to on page 7 of Exhibit A) were successfully tested prior to August of 2000 as a master device in the various "ECC Communications" tests identified in sections 1.1 through 1.6 of Exhibit H;
- the use of "real-time information" recited in independent claims 1, 9, 17, 24, 31 and 38 (which corresponds to the "real time, tabular data from the attached devices" referred to on page 36 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Communications" tests identified in sections 1.1 through 1.6 of Exhibit H, and in the various "ECC Security" tests identified in section 3.5.1 of Exhibit H;
- the "HTML pages" recited in independent claims 1, 17, 24, 31 and 38 (which correspond to HTML pages referred to on pages 2, 17, 21-22, 36, 50 and 55 of Exhibit A) were successfully tested prior to August of 2000 in the various "ECC Security" tests identified in sections 3.1 through 3.5 in Exhibit H;
- the "JavaScript" recited in claims 4, 12, 20, 27 and 34 (which corresponds to the JavaScript referred to on pages 37 and 40 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Security" tests identified in section 3.5.1 of Exhibit H;
- the "SyMax" recited in claims 3, 11, 19, 26 and 33 (which corresponds to the SyMax referred to on pages 7, 38 and 51 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Communications" tests identified in sections 1.1.3, 1.2.3, 1.4.3 and 1.5.3 of Exhibit H;
- the "Modbus" recited in claims 3, 11, 19, 26 and 33 (which corresponds to the Modbus referred to on pages 7, 16, 20, 24, 31-33, 38, 51, 53, 55 and 58-60 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC

Communications" tests identified in sections 1.1.2-1.1.3, 1.2.2-1.2.3, 1.3.1, 1.4.2-1.4.3 and 1.5.2-1.5.3 of Exhibit H;

- the "Jbus" recited in claims 3, 11, 19, 26 and 33 (which corresponds to the Jbus referred to on pages 7, 24 and 51 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Communications" tests identified in sections 1.1.3, 1.2.3, 1.4.3 and 1.5.3 of Exhibit H;
- the "web browser" or "internet browser" recited in claims 5, 8, 13, 16, 21 and 41 (which corresponds to the web browser or internet browser referred to on pages 17, 21 and 22 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Security" tests identified in sections 3.1 through 3.3 of Exhibit H;
- the "login" recited in claims 5, 13, 21, 28 and 35 (which corresponds to the login referred to on pages 17, 31, 36 and 50 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Security" tests identified in sections 3.1 through 3.3 of Exhibit H;
- the "access token" recited in claims 5, 13, 21, 28 and 35 (which corresponds to the access token referred to on pages 17, 31 and 59 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Security" tests identified in sections 3.1 through 3.3 of Exhibit H;
- the "fast ethernet transceiver" recited in claims 7,15 and 40 (which corresponds to the fast ethernet transceiver referred to on page 12 of Exhibit A) was successfully tested prior to August of 2000 in all the various ECC tests identified in Exhibit H;
- the "10/100 media access controller" recited in claims 7, 15, 23, 30, 37 and 40 (which corresponds to the 10/100 media access controller referred to on pages 7, 8, 10 and 12 of Exhibit A) was successfully tested prior to August of 2000 in all the various ECC tests identified in Exhibit H;
- the "daisy chain" recited in claims 3, 11, 19, 26 and 33 (which corresponds to the daisy chain referred to on pages 11, 20, 24 and 36 of Exhibit A) was successfully tested prior to August of 2000 in the various "ECC Communications" tests identified in sections 1.1 through 1.6 of Exhibit H;
- the "full duplex or half duplex communications" recited in claims 3, 11, 19, 26 and 33 (which corresponds to the full duplex and half duplex referred to on pages 1 and 51 of

Exhibit A) were successfully tested prior to August of 2000 in the various "ECC Communications" tests identified in sections 1.1 through 1.6 of Exhibit H (the "4Wire" tests were full duplex and the "2 Wire" were half duplex);

- the "single physical interface chip capable of supporting dual physical ethernet media types" recited in claims 6, 14, 22, 29, 36 and 39 (which corresponds to the PHY referred to throughout Exhibit A and identified on page 14 of Exhibit A as an "IC," which means an integrated circuit or chip) was successfully tested prior to August of 2000 in all the various ECC tests identified in Exhibit H.

8. The "pseudo-ECL interface" recited in claims 7, 15, 23, 30, 37 and 40 (which corresponds to the pseudo-ECL interface referred to on page 12 of Exhibit A) and the "100BaseFx fast fiber transceiver" recited in claims 7, 15, 23, 30, 37 and 40 (which corresponds to the 100BaseFx fast fiber transceiver referred to on pages 7 and 12 of Exhibit A) were also successfully tested. These tests involved the use of the optical fiber port on the ECC, and it was necessary for us to purchase a special optical-fiber cable for such tests. The attached Exhibit I is a purchase order for that cable, purchased on April 26, 2000.

9. Attached as Exhibit J are copies of exemplary Square D records of bug results after tests conducted on ECC's in June and July of 2000, prior to the first shipments of ECC's to customers in August of 2000.

10. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the '493 application or any patent issued thereon.

Dated: September 25, 2006

Timothy G. Curray

Dated: September 27 2006

Bradley A. Lazenby